

A NEW SPECIES OF THE GENUS *COPROPHILUS* LATREILLE FROM CHINA (COLEOPTERA, STAPHYLINIDAE, OXYTELINAE)

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Abstract Three species of the genus *Coprophilus* Latreille from China are reported, of which one is a new species, *Coprophilus* (*Zonyptilus*) *xinjiangensis* sp. nov., and other two, *C. (Coprophilus) formosanus* Shibata and *C. (Z.) difformis* Smetana, are found for the first time in Mainland China. These species are described and illustrated in the paper. A key to the Chinese species of this genus is provided. Type specimens are deposited in the Life Science College, China West Normal University, Nanchong, Sichuan.

Key words Staphylinidae, Oxytelinae, *Coprophilus*, new species, China.

The genus *Coprophilus* Latreille is a relatively small genus of the subfamily Oxytelinae, containing at present about 31 species, mainly distributed in the temperate regions of the Northern Hemisphere. Only 7 species of this genus have been reported from China.

The genus comprises two subgenera *Coprophilus* Latreille, 1829 and *Zonyptilus* Motschulsky, 1845 and can be easily distinguished from all other genera of the subfamily Oxytelinae by its the strongly sclerotized body, the stout fourth segment of the maxillary palpus, the absence of the epistomal suture, the separation of the gular sutures for entire length, the open procoxal fissure, the striate elytra, the separation of the mesocoxae by the mesosternal process, and the presence of two abdominal laterosternites.

This paper deals with three species of the genus *Coprophilus* Latreille from China, of which one is described as new species, *Coprophilus* (*Zonyptilus*) *xinjiangensis* sp. nov., and other two, *C. (Coprophilus) formosanus* Shibata and *C. (Z.) difformis* Smetana, are found for the first time in Mainland China.

All type specimens are deposited in the Life Science College, China West Normal University, Nanchong, Sichuan.

Key to the Chinese species of *Coprophilus*.

1. Sides of pronotum crenulate subgenus *Coprophilus* 2
Sides of pronotum even subgenus *Zonyptilus* 4
2. Elytra black 3
Elytra yellowish red; Heilongjiang, Jilin
..... *Coprophilus (Coprophilus) sibiricus* Bernhauer
3. Pronotum with seven deep impressons; Taiwan
..... *C. (C.) formosanus* Shibata
Pronotum with two shallow impressons; Sichuan
..... *C. (C.) chinensis* Zheng
4. Elytra reddish with large indeterminate blackish lateral markings; Tibet *Coprophilus (Zonyptilus) subplagiatus* Cameron
Elytra yellow to yellowish brown, without lateral markings 5
5. Elytra yellowish brown, near lateral margins darker; Beijing, Tianjin, Shanghai *C. (Z.) pennifer* Motschulsky

- Elytra yellow to yellowish brown, near lateral margins not dark ... 6
6. Body larger, pronotum sexually dimorphic, male abdominal sternite 8 subtruncate apically *C. (Z.) difformis* Smetana
Body smaller, pronotum not sexually dimorphic, male abdominal sternite 8 distinctly arcuately produced in middle of apical margin ...
..... *Coprophilus (Z.) xinjiangensis* sp. nov.

Coprophilus (*Zonyptilus*) *xinjiangensis* sp. nov. (Figs 1–10)

Diagnosis. The species is very similar to *C. (Z.) bimaculatus* Luze from Tajikistan and Kazakhstan, but can be recognized by its elytra yellow to reddish yellow, without apical marks on elytra, and aedeagus with parameres different in shape. This species also resembles *C. (Z.) difformis* Smetana from Taiwan, China, but differs in its body smaller, pronotum not sexually dimorphic, male abdominal sternite 8 distinctly arcuately produced at middle of apical margin, and different in shape of aedeagus.

Description. Head black; antennae, labrum, mandibles, maxillary and labial palpi, and legs reddish brown; pronotum and abdomen dark brown to black; elytra yellow to reddish yellow with darkened base and area around scutellum.

Length 3.5–4.4 mm.

Male. Head wider than long (ratio 1.4), narrower (ratio 0.73) and shorter (ratio 0.75) than pronotum; neck very wide, distinctly wider than distance between inner margins of eyes (ratio 1.36); with rather prominent tubercles above each antennal insertion and with a broad shallow longitudinal impression inner side of it; eyes convex, touching transverse basal sulcus posteriorly, temples therefore indistinct; surface of head without microsculpture, sparingly, coarsely and unevenly punctate; punctation of neck in general slightly denser than that on head. Antennae longer, reaching anterior fifth of elytra when reclined, slightly thickened towards apex; first six



Figs 1-10. *Coprophilus (Zomyptilus) xinjiangensis* sp. nov. 1, 3-9. Male. 2, 10. Female. 1-2. Dorsal habitus. 3. Tergite 8. 4. Sternite 8. 5. Tergite 10. 6. Sternite 9. 7-9. Aedeagus. 7. Ventral view. 8. Lateral view. 9. Dorsal view. 10. Sternite 8.

segments without dense, short decumbent pubescence; segment 1 robust, shorter than segments 2-3 combined; segment 2 wider than segment 3, almost equal in length; segments 4-6 longer than wide; segments 7-10 about as long as wide; last segment shorter than two preceding segments combined (ratio 0.8).

Pronotum wider than long (ratio 1.17), shorter (ratio 0.7) and narrower (ratio 0.89) than elytra, anterior margin broadly shallowly emarginate medially, sides subarcuately narrowed posteriad and anteriorly, posterior margin slightly arcuately produced; widest about at anterior third; posterior portion of lateral margin inconspicuously subcrenulate, finely but distinctly margined all around; disc of pronotum without impressions, punctuation line, slightly unevenly distributed, surface without microsculpture.

Scutellum distinctly margined, with a few coarse punctures.

Elytra about as wide as long, slightly widened apicad; each elytron with complete, slightly arcuate finely punctate sutural stria, and with five incomplete, posteriorly abbreviated punctate striae, apical portion of each elytron with some irregular punctures or punctate striae; surface of elytra without microsculpture; elytral epipleural ridge distinct. Wings fully developed.

Abdomen with each tergite sparsely, slightly coarsely punctate, surface with very line, coriaceous microsculpture; tergites 3-7 slightly impressed at

base; tergite 8 arcuately emarginate apically; sternite 8 arcuately produced in middle of apical margin; tergite 10 short and broad, rounded hexagonal shape; sternite 9 narrow and elongate, with attenuate basal portion.

Aedeagus slightly wide and short; median lobe slightly sclerotized; parameres distinctly dilated in apical portion, distinctly exceeding apex of median lobe; internal sac as illustrated.

Female. Similar to male, but sternite 8 triangularly produced at apical margin.

Holotype ♂, China, Xinjiang, Urumqi City (43°45'N, 87°36'E; alt. 680-920 m), Aug. 1995, collected by Bayi Agricultural College. Paratypes: 2 ♀♀, same data as holotype.

Habitat and Distribution. Habitat of the species is not clear now; it is at present known from the type locality in Xinjiang.

Etymology. The specific epithet is from the Chinese name of the type locality, "Xinjiang".

***Coprophilus (Zomyptilus) difformis* Smetana (Fig. 11)**

2 ♂♂, Sichuan, Mt. Emei (29°36'N, 103°29'E; alt. 1752-2070 m), 28-31 Aug. 1982, collectors by WEI Fu-Wen.

This is the first record of *C. (Z.) difformis* Smetana from Mainland China. It was previously known from Taiwan, China.

***Coprophilus (Coprophilus) formosanus* Shibata (Fig. 12)**

1 ♂, 1 ♀, Sichuan, Yele Nature Reserve, Mianming County (28° 50' – 29° N, 101° 59' – 102° 16' E; alt. 2 600 m), 7 Sep. 2005, collected by XIAO Fan. 1 ♂, 1 ♀, Sichuan, Heizhugou Forest Park, Ebian County (29° N, 103° E; alt. 2 300 –

2 920 m), 2 – 6 Aug. 2006, collected by QIU Guang-Hui.

Comments. This is the first record of *C. (C.) formosanus* Shibata from Mainland China. It was previously known from Taiwan China.



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Fig. 11. *Coprophilus (Zomyptilus) difformis* Smetana. Fig. 12. *Coprophilus (Coprophilus) formosanus* Shibata.

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中国粪隐翅虫属一新种 (鞘翅目, 隐翅虫科, 异形隐翅虫亚科)

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摘要 报道中国粪隐翅虫属的 3 个种, 记述 1 新种, 新疆粪隐翅虫 *Coprophilus (Zonyptilus) xinjiangensis* sp. nov., 首次记录分布中国大陆的 2 个种, 奇异粪隐翅虫 *C. (Z.) difformis* Smetana 和台湾粪隐翅虫 *C. (Coprophilus) formosanus* Shibata。编制了该属的中国种检索表。模式标本保存在西华师范大学生命科学学院。

新疆粪隐翅虫, 新种 *Coprophilus (Zonyptilus) xinjiangensis* sp. nov. (图 1~10)

本种与来自塔吉克斯坦和哈萨克斯坦的双斑粪隐翅虫 *C.*

(*Z.*) *bimaculatus* Luze 很相似, 但通过它的鞘翅黄色至黄色显红、无端斑, 以及雄性外生殖器侧叶的不同形态可以区分。新种与来自中国台湾的奇异粪隐翅虫 *C. (Z.) difformis* Smetana 也相似, 但它的身体较小, 前胸无性二型, 雄性腹部第 8 腹板后缘中部近弓形突出, 以及雄性外生殖器的不同形态, 与之有别。

正模♂, 中国新疆, 1995-08, 新疆八一农学院采。副模 2 ♀♀, 采集记录同正模。

词源: 新种种名源自模式产地地名。

关键词 隐翅虫科, 异形隐翅虫亚科, 粪隐翅虫属, 新种, 中国.

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